



TORONTECH

FTIR SPECTROMETERS



FTIR Spectrometers

Fourier transform infrared analysis from benchtop to handheld, for material ID, polymers, emissions, and composition.

FTIR spectrometers identify and quantify materials by measuring how they absorb infrared light, turning each sample's molecular fingerprint into a readable spectrum. Quality labs, field inspectors, and process engineers use them to confirm identity, compare unknowns, and check composition.

The Torontech range spans benchtop, portable, handheld, and gas-analysis models, so you can match the instrument to your samples and setting. Bundled spectral libraries and quantitative modules, including methods aligned with ASTM E2412 and EN 14078, extend the family from routine material identification to emissions and composition work.

Applications

FTIR and related infrared analysis support identification and quality control across many industries.

- Pharmaceutical and Chemical QC: verifies raw materials, excipients, and finished products against reference spectra.
- Polymers and Rubber: identifies and characterizes resins, additives, elastomers, and coatings during development and QC.
- Environmental and Emissions Monitoring: measures stack gas and VOC emissions and screens organic contaminants in the field.
- Petrochemical and Lubricants: monitors in-service oil condition and measures biodiesel FAME content.
- Food and Agriculture: screens composition and adulteration in grain, feed, dairy, and finished foods.
- Customs, Security, and Forensics: identifies unknown substances, drugs, and explosives on site.
- Academic and Research: teaches infrared spectroscopy and supports multi-component analysis.

FTIR Spectrometer Range

The lineup covers four form factors plus a near-infrared companion, so buyers can choose by sample, setting, and throughput. Each model targets a different job, from high-resolution lab identification to field screening and multi-gas emissions monitoring.

Model	Form Factor	Spectral Range	Description
ToronFTIR™ 7800	Benchtop	7,800 to 350 cm ⁻¹	Wide-range benchtop FTIR for high-resolution material identification and QC. Suits labs needing broad near and mid-infrared coverage and a large reference library.
ToronFTIR™ R4000	Benchtop	4,000 to 400 cm ⁻¹	Compact benchtop FTIR tuned for rubber and polymer identification, with library matching that names base elastomers and flags additives.
ToronFTIR™ P7800	Portable / transportable	7,800 to 350 cm ⁻¹	The 7800 platform in a transportable configuration for teams that move analysis between benches and sites.
ToronFTIR™ H7800A	Handheld	7,800 to 650 cm ⁻¹	Single-technique handheld FTIR for fast, non-destructive material ID on site. The core field model for QC and inspection.
ToronFTIR™ H7800M	Handheld FTIR and Raman Spectrometer	7,800 to 550 cm ⁻¹ (IR) + 4,000 to 170 cm ⁻¹ (Raman)	Dual FTIR-Raman handheld for customs, hazmat, and measuring through sealed containers, where two techniques widen coverage.
ToronFTIR™ G12000	Portable gas analyzer	600 to 4,500 cm ⁻¹	Portable extractive FTIR for stack emissions and VOC monitoring, measuring more than 50 gases at once in hot, corrosive flue gas.
ToronNIR™ 2600	Benchtop FT-NIR	12,000 to 3,800 cm ⁻¹ (800 to 2,600 nm)	Near-infrared analyzer for rapid moisture, protein, fat, and starch in grain, feed, and food. Reports composition rather than fingerprint identity.

How to Choose the Right FTIR Spectrometer

- For high-resolution lab material identification: choose the benchtop ToronFTIR™ 7800 for broad spectral coverage and a large library.
- For rubber and polymer identification: choose the ToronFTIR™ R4000, tuned for elastomers and additives.
- For lab-grade analysis you move between sites: choose the transportable ToronFTIR™ P7800.
- For fast on-site material ID by one operator: choose the handheld ToronFTIR™ H7800A.
- For customs, hazmat, and through-container screening: choose the dual FTIR-Raman ToronFTIR™ H7800M.

- For stack emissions and multi-gas VOC monitoring: choose the portable ToronFTIR™ G12000.
- For grain, feed, and food composition (moisture, protein, fat, starch): choose the FT-NIR ToronNIR™ 2600.

Why Choose Torontech for Your FTIR Spectrometer

Torontech supplies testing and measurement equipment to laboratories and manufacturers across North America and worldwide, backed by responsive technical support and calibration service. The FTIR spectrometer range is built for reliable, standards-driven results, so you can standardize on one supplier as your testing needs grow. Our team helps you match the right configuration to your samples, applicable standards, and throughput, then supports you through installation and beyond.

Request a Quote

Tell us your sample type, the materials or gases you analyze, and whether you work in the lab or the field, and we will recommend the right FTIR spectrometer. [Contact the Torontech team](#) for pricing and lead times.



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